

Claims

What is claimed is:

5 1. Method for arranging SIM (Subscriber Identity Module) facility (11.1) to digital wireless terminal equipment (A, D) communicating in a data communication network (10), wherein the said SIM facility (11.1) is associated with a processor functionality and memory devices for storing application,  
10 subscriber and network specific data (13.1, 13.4, 14.1, 14.4) and wherein the terminal equipment (A, D) is also associated with a processor functionality (SJE) for carrying out of dynamic applications, characterised in that at least a main part of the application, subscriber and network specific data  
15 (13.1, 13.4, 14.1, 14.4) implementing the SIM facility is downloaded into the terminal equipment (A, D) through the data communication network (10).

2. Method according to claim 1, characterised in that the  
20 terminal equipment (A, D) and the data communication network (10) are equipped with a downloading application (16.1, 16.4, 15) for downloading of the said SIM data (13.1, 13.4, 14.1, 14.4).

25 3. Method according to claim 1 or 2, characterised in that the said data communication network (10) is associated with a functionality (15) for management of the said SIM data and devices (13, 14) for storing it.

30 4. Method according to any claim 1 - 3, characterised in that when SIMless terminal equipment (A, D) connects to the data communication network (10), the following steps are carried out  
- identification information is formed at the terminal equipment (A, D) for downloading of the established SIM  
35 data (13.1, 13.4, 14.1, 14.4) (202),

- the identification information is transmitted to the management functionality (15) arranged in connection with the data communication network (10) (203.1),
- a data transmission session is set up and carried out  
5 between the terminal equipment (A, D) and the management functionality (15) for downloading of the said SIM data (13.1, 13.4, 14.1, 14.4) into the terminal equipment (A, D) (205.1 - 205.2, 206 - 207),
- the SIM application is carried out at the terminal  
10 equipment (A, D) (208), and
- the user interface is made free at the terminal equipment (A, D) (210).

5. Method according to any claim 1 - 4, characterised in that  
15 when transferring the SIM facility from a first piece of terminal equipment (A) to a second piece of terminal equipment (B) the following steps are carried out

- at the first piece of terminal equipment (A) possible  
20 measures are taken for transferring the SIM facility (301),
- a data transmission session is set up and carried out between the first piece of terminal equipment (A) and the management functionality (15) for transferring the said SIM data (13.1, 13.4, 14.1, 14.4) to be in connection  
25 with the management functionality (15) (303.1, 303.2, 304.1, 304.2),
- the data arranged in connection with the management functionality (15) and transferred from the terminal equipment (A) is synchronised (305), and
- 30 - the said second piece of terminal equipment (B) is used to connect with the data communication network (10) in order to download a SIM facility having the same identification information.

6. Method according to claim 5, characterised in that identification information is also formed in order to activate the new SIM facility.

5 7. Method according to claim 6, characterised in that equipment-specific data arranged in connection with the terminal equipment (A) is used to form the said identification information.

10 8. Method according to claim 4 or 5, characterised in that the status of the SIM facility of the terminal equipment (A, B) is updated as one subordinated step.

9. Method according to any claim 5 - 8, characterised in that  
15 SIM data is destroyed at the first piece of terminal equipment (A) as one subordinated step.

10. Method according to any claim 1 - 9, characterised in that in the terminal equipment (A, B) a physical SIM processor card  
20 is arranged, which includes a dynamic processor environment (SJE) for carrying out of downloaded applications.

11. Method according to any claim 1 - 10, characterised in that at least a part of the data (13.1, 14.1) to be downloaded  
25 and/or transferred is compressed.

12. Method according to any claim 1 - 11, characterised in that at least a part of the data (13.1, 14.1) to be downloaded and/or transferred is encrypted.

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13. Method according to any claim 1 - 12, characterised in that the said SIM application data (14.1) includes SIM logic.

14. Method according to any claim 1 - 13, characterised in that  
35 the said SIM application data (14.1) includes algorithms, such

as, for example, algorithms relating to authentication and/or encryption of the network.

15. Method according to any claim 1 - 14, characterised in that  
5 the downloading of SIM data (13.1, 14.1) into the terminal equipment (A, B) is carried out locally.

16. Digital wireless terminal equipment (A, D), in connection with which a SIM (Subscriber Identity Module) facility (11.1)  
10 is arranged, which includes a processor functionality and memory devices for storing application, subscriber connection and network specific data (13.1, 14.1, 13.4, 14.4) and wherein a processor functionality (SJE) is also arranged in connection with the terminal equipment (A, D) for carrying out of dynamic  
15 applications, characterised in that at least a main part of the application, subscriber connection and network specific data (13.1, 14.1, 13.4, 14.4) implementing the SIM facility is arranged for downloading into the terminal equipment (A, D) through the data communication network (10).

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17. Server (12) for arranging SIM facility to digital wireless terminal equipment (A, D), wherein the server (12) is arranged in connection with a data communication network (10) and wherein the SIM facility includes application, subscriber  
25 connection and network specific data (13.1, 14.1, 13.4, 14.4) characterised in that the server (12) has a functionality (15) for management of the data belonging to the said SIM facility and devices (13, 14) for storing the data and wherein the management functionality (15) is associated with a routing  
30 application for downloading the said SIM data (13.1, 14.1, 13.4, 14.4) into the said terminal equipment (A, D) through the data communication network (10).